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Substitute for form 1449A-B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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	Application Number	10/084,245	11.5		ユ	
	Filing Date	February 27, 2002	<u>a</u>			
	First Named Inventor	Kennedy	a ,		7	ľ
	Group Art Unit	1645	111	<u> </u>	7	-
	Examiner Name			70	*	
	Attorney Docket Number	100/14910	<u></u>	المنار	-₹	b
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	T	U.S. Patent Docu	ıment	S. PATENT DOCUMENTS Name of Patentee or Applicant of	Date of Publication of	Pages, Column Lines,
xaminer iitials	Cite No.	Number	Kind Code (if known)	, Cited Document	Cited Document MM-DD-YYYY	Where Relevant Rassages or Relevant Figures Appeal
γ~	AA	4,390,403		Batchelder	06-28-1983	
	AB	4,908,112		Pace	03-13-1990	
	AC	5,126,022		Soane et al.	06-30-1992	
	AD	5,498,392		Wilding et al.	03-12-1996	
·	ΑE	5,571,410		Swedberg et al.	11-05-1996	
	AF	5,585,069		Zanzucchi et al.	12-17-1996	
	AG	5,593,838		Zanzucchi et al.	01-14-1997	
	АН	5,603,351		Cherukuri et al.	02-18-1997	A P
	Al	5,635,358		Wilding et al.	06-03-1997	7 8
T	AJ	5,637,469		Wilding et al.	06-10-1997	- 8
	AK	5,699,157		Parce	12-16-1997	0 28
	AL	5,716,852		Yager et al.	02-10-1998	9 8
	AM	5,750,015		Soane et al.	05-12-1998	
	AN	5,800,690		Chow et al.	09-01-1998	
	AO	5,858,187		Ramsey et al.	01-12-1999	
	AP	5,858,195		Ramsey	01-12-1999	
	AQ	5,869,004		Parce et al.	02-09-1999	
	AR	5,876,675		Kennedy	03-02-1999	
	AS	5,880,071		Parce et al.	03-09-1999	
	AT ·	5,882,465		McReynolds	03-16-1999	
	AU	5,885,470		Parce et al.	03-23-1999	
	ΑV	5,932,100		Yager et al.	08-03-1999	
	AW	5,942,443		Parce et al.	08-24-1999	
	AX	5,948,227		Dubrow	09-07-1999	
	AY	5,955,028		Chow	09-21-1999	
/	AZ	5,958,694		Nikiforov	09-28-1999	***************************************
~	ВА	5,959,291		Jensen	09-28-1999	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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6,280,589

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Examiner Name		11
Attorney Docket Number	100/14910	

08-28-2001

(use as many sheets as necessary) BB 5,965,410 Chow et al. 10-12-1999 BC 5,976,336 Dubrow et al. 11-02-1999 5,989,402 BD Chow et al. 11-23-1999 BE 6,001,229 Ramsey 12-14-1999 BF 6,001,231 Kopf-Sill 12-14-1999 BG 6,012,902 Parce 01-11-2000 BH 6,042,709 Parce et al. 03-28-2000 ВІ 6,062,261 Jacobson et al. 05-16-2000 BJ 6,074,725 Kennedy 06-13-2000 BK 6,100,541 Nagle et al. 08-08-2000 BL 6,120,666 Jacobson et al. 09-19-2000 BM 6,221,226 Kopf-Sill 04-24-2001 BN 6,235,471 Knapp et al. 05-22-2001

				FOREIGI	N PATENT DOCUMEN	TS		
			Foreign Patent Docu			Date of Publication	Pages, Columns, Lines,	
Examiner Initlats	Cite No.	Office	Number	Kind Code (if known)	Name of Patentee or Applicant of Cited Document	of Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear	1
an	BP	wo	9604547		Lockheed Martin	02-15-1996		
N	BQ	wo	9702357		Affymetrix, Inc.	01-23-1997		

Manz et al.

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS							
Examin er Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	т					
₩ BR		BR DASGUPTA, P.K. et al., "Electroosmosis: A Reliable Fluid Propulsion System for Flow Injection Analysis," Anal. Chem. (1994) 66:1792-1798						
BS EFFENHAUSER, C.S. et al., "Glass Chips for High-Speed Capillary Electrophoresis Separations with Submicrometer Plate Heights," Anal. Chem. (1993) 65: 2637-2642								
ψ	ВТ	EFFENHAUSER, C.S. et al., "High Speed Separation of Anitsense Oligonucleotides on a Micromachined Capillary Electrophoresis Device," Anal. Chem. (1994) 66: 2949-2953						
BU EFFENHAUSER, C.S. et al., "Integrated Capillary Electrophoresis on Flexible Silicone Microdevices: Analysis of DNA Restriction Fragments and Detection of Single DNA Molecu on Microchips," Anal. Chem. (1997) 69: 3451-3457								
Examiner Signature		Date Considered 8 4 05						

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known

Application Number 10/084,245

Filing Date February 27, 2002

First Named Inventor Kennedy

Group Art Unit 1645

Examiner Name

Attorney Docket Number 100/14910

(use as many sheets as necessary)

BV	FAN, Z.H. et al., "Micromachining of Capillary Electrophoresis Injectors and Separators on Glass Chips and Evaluation of Flow at Capillary Intersections," Anal. Chem. (1994) 66 177-184	
BW	FISTER, J.C. III et al., "Counting Single Chromophore Molecles for Ultrasensitive Analysis and Separations on Microchip Devices," Anal. Chem. (1998) 70: 431-437	
ВХ	HADD, A.G. et al., "Microfluidic Assays of Acetylcholinesterase," Anal. Chem. (1999) 71: 5206-5212	
BY	HARRISON, J. et al., "Capillary Electrophoresis and Sample Injection Systems Integrated on a Planar Glass Chip," Anal. Chem. (1992) 64: 1926-1932	AUG
BZ	HARRISON, J. et al., "Towards Miniaturized Electrophoresis and Chemical Analysis Systems on Silicon: An Alternative to Chemical Sensors*," Sensors and Actuators B (1993) 10: 107-116	2 8 2004
CA	HARRISON, J. et al., "Micromachining a Miniaturized Capillary Electrophoresis-Based Chemical Analysis System on a Chip," Science (1993) 261: 895-897)—(
СВ	HARRISON, D.J. et al., "Integrated Electrophoresis Systems for Biochemical Analyses," Solid-State Sensor and Actuator Workshop (1994) 21-24	
СС	JACOBSON, S.C. et al., "Effects of Injection Schemes and Column Geometry on the Performance of Microchip Electrophoresis Devices," Anal. Chem. (1994) 66:1107-1113	
CD	JACOBSON, S.C. et al., "High-Speed Separations on a Microchip," Anal. Chem. (1994) 66: 1114-1118	
CE	JACOBSON, S.C. et al., "Open Channel Electrochromatography on a Microchip," <u>Anal. Chem.</u> (1994) 66: 2369-2373	
CF	JACOBSON, S.C. et al., "Precolumn Reactions with Electrophoretic Analysis Integrated on a Microchip," Anal. Chem. (1994) 66: 4127-4132	
CG	JACOBSON, S.C. et al., "Microchip Electrophoresis with Sample Stacking," Electrophoresis (1995) 16: 481-486	
СН	JACOBSON, S.C. et al., "Fused Quartz Substrates for Microchip Electrophoresis," Anal. Chem. (1995) 67: 2059-2063	
CI	JACOBSON, S.C. et al., "Integrated Microdevice for DNA Restriction Fragment Analysis," Anal. Chem. (1996) 68: 720-723	
င	JACOBSON, S.C. et al., "Electrokinetic Focusing in Microfabricated Channel Structures," <u>Anal. Chem.</u> (1997) 69: 3212-3217	
СК	JACOBSON, S.C. et al., "Microfluidic Devices for Electrokinetically Driven Parallel and Serial Mixing," Anal. Chem. (1999) 71: 4455-4459	
	BW BX BY CA CB CC CD CE CF CG CH CI CJ	BV FAN, Z.H. et al., "Micromachining of Capillary Electrophoresis Injectors and Separators on Glass Chips and Evaluation of Flow at Capillary Intersections," Anal. Chem. (1994) 665, 177-184 BW FISTER, J.C. III et al., "Counting Single Chromophore Molectes for Ultrasensitive Analysis and Separations on Microchip Devices," Anal. Chem. (1998) 70: 431-437 BX HADD, A.G. et al., "Microfluidic Assays of Acetylcholinesterase," Anal. Chem. (1999) 71: 5206-5212 BY HARRISON, J. et al., "Capillary Electrophoresis and Sample Injection Systems Integrated on a Planar Glass Chip," Anal. Chem. (1992) 64: 1926-1932 BZ HARRISON, J. et al., "Towards Miniaturized Electrophoresis and Chemical Analysis Systems on Silicon: An Alternative to Chemical Sensors", "Sensors and Actuators B (1993) 10: 107-116 CA HARRISON, J. et al., "Micromachining a Miniaturized Capillary Electrophoresis-Based Chemical Analysis Systems on a Chip," Science (1993) 261: 895-897 CB HARRISON, D.J. et al., "Integrated Electrophoresis Systems for Biochemical Analyses," Solid-State Sensor and Actuator Workshop (1994) 21-24 CC JACOBSON, S.C. et al., "Effects of Injection Schemes and Column Geometry on the Performance of Microchip Electrophoresis Devices," Anal. Chem. (1994) 66: 1107-1113 CD JACOBSON, S.C. et al., "High-Speed Separations on a Microchip," Anal. Chem. (1994) 66: 2369-2373 CF JACOBSON, S.C. et al., "Open Channel Electrochromatography on a Microchip," Anal. Chem. (1994) 66: 4127-4132 CG JACOBSON, S.C. et al., "Precolumn Reactions with Electrophoretic Analysis Integrated on a Microchip," Anal. Chem. (1994) 66: 4127-4132 CG JACOBSON, S.C. et al., "Microchip Electrophoresis with Sample Stacking," Electrophoresis (1995) 16: 491-486 CH JACOBSON, S.C. et al., "Integrated Microdevice for DNA Restriction Fragment Analysis," Anal. Chem. (1995) 68: 720-723 JACOBSON, S.C. et al., "Electrokinetic Focusing in Microfabricated Channel Structures," Anal. Chem. (1997) 69: 3212-3217

Examiner Signature	Date Considered	3/4	05
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Group Art Unit	1645			-
Examiner Name		ũ		T
Attorney Docket Number	100/14910			

(use as many sheets as necessary)

of	CL	MANZ, A. et al., "Miniaturized Total Chemical Analysis Systems: a Novel Concept for Chemical Sensing," Sensors and Actuators (1990) B1: 244-248	(
Ľ	СМ	MANZ, A. et al., "Micromachining of Monocrystalline Silicon and Glass for Chemical Analysis Systems," <u>Trends in Analytical Chemistry</u> (1991) 10:144-149	
CN MANZ, A. et al., "Planar Chips Technology for Miniaturization and In Techniques into Monitoring Systems," Journal of Chromatography		MANZ, A. et al., "Planar Chips Technology for Miniaturization and Integration of Separation Techniques into Monitoring Systems," <u>Journal of Chromatography</u> (1992) 593:253-258	
	СО	MANZ, A. et al., "Planar Chips Technology for Miniaturization of Separation Systems: A Developing Perspective in Chemical Monitoring,"	
	СР	MANZ, A. et al., "Electroosmotic Pumping and Electrophoretic Separations for Miniaturized Chemical Analysis Systems," J. Micromach. Microeng. (1994) 4: 257-265	
	CQ	MANZ, A. et al., "Parallel Capillaries for High Throughput in Electrophoretic Separations and Electroosmotic Drug Discovery Systems," International Conference on Solid-State Sensors and Actuators (1997) 915-918	AUG 4 0
	CR	McCORMICK, R.M. et al., "Microchannel Electrophoretic Separations of DNA in Injection-Molded Plastic Substrates," Anal. Chem. (1997) 69: 2626-2630	. 0
	CS	MOORE, A.W. et al., "Microchip Separations of Neutral Species via Micellar Electrokinetic Capillary Chromatography," Anal. Chem. (1995) 67: 4184-4189	5
	СТ	RAMSEY, J.M. et al., "Microfabricated Chemical Measurement Systems," Nature Medicine (1995) 1:1093-1096	
	CU	SALIMI-MOOSAVI, H. et al., "Biology Lab-on-a-Chip for Drug Screening," Solid-State Sensor and Actuator Workshop (1998) 350-353	
	CV	SEILER, K. et al., "Planar Glass Chips for Capillary Electrophoresis: Repetitive Sample Injection, Quantitation, and Separation Efficiency," <u>Anal. Chem.</u> (1993) 65:1481-1488	
	CW	SEILER, K. et al., "Electroosmotic Pumping and Valveless Control of Fluid Flow within a Manifold of Capillaries on a Glass Chip," <u>Anal. Chem.</u> (1994) 66:3485-3491	
	СХ	UEDA, M. et al., "Imaging of a Band for DNA Fragment Migrating in Microchannel on Integrated Microchip," Materials Science and Engineering C (2000) 12:33-36	•
	CY	WANG, C. et al., "Integration of Immobilized Trypsin Bead Beds for Protein Degestion within a Microfluidic Chip Incorporating Capillary Electrophoresis Separations and an Electrospray Mass Spectrometry Interface," Rapid Commin. Mass Spectrom. (2000) 14:1377-1383	
Y	CZ	WOOLLEY, A.T. et al., "Ultra-High-Speed DNA Fragment Separations Using Microfabricated Capillary Array Electrophoresis Chips," Proc. Natl. Acad. Sci. USA (1994) 91:11348-11352	
d~	DΑ	WOOLLEY, A.T. et al., "Functional Integration of PCR Amplification and Capillary Electrophoresis in a Microfabricated DNA Analysis Device," Anal. Chem. (1996) 68: 4081-4086	

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(use as many sheets as necessary)

W	DB	WOOLLEY, A.T. et al., "High-Speed DNA Genotyping Using Microfabricated Capillary Array," Electrophoresis Chips," Anal. Chem. (1997) 69:2181-2186	002
W	DC	WOOLLEY, A.T. et al., "Capillary Electrophoresis Chips with Integrated Electrochemical Detection," Anal. Chem. (1998) 70: 684-688	
W	DD	ZHANG, B. et al., "Microfabricated Devices for Capillary Electrophoresis-Electrospray Mass Spectrometry," Anal. Chem. (1999) 71:3258-3264	

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